

AMENDMENTS TO THE CLAIMS:

Please amend claims 1, 7, 10-12, 15, and 18-20 and add new claims 23 and 24 as follows:

1. (currently amended) A method for manufacturing a semiconductor device, the method comprising ~~the steps of~~:
 - (a) forming an oxide film ~~for a storage electrode on an entire surface of a semiconductor substrate comprising a cell area and a peripheral circuit area;~~
 - (b) etching the oxide film ~~for storage electrode in the cell area~~ to define a storage electrode area;
 - (c) forming a storage electrode in the storage electrode area;
 - (d) forming a photoresist film pattern on the oxide film for the storage electrode in the peripheral circuit area; and
 - (e) removing the oxide film for the storage electrode in the cell area via a wet etching process using the photoresist film pattern as a mask, and removing the photoresist film pattern to provide a resulting structure;
 - (f) ~~sequentially forming a dielectric film and a plate electrode on the entire surface of the resulting structure; and~~
 - (g) ~~forming an interlayer insulating film on the entire surface of the resulting structure.~~
2. (original) The method according to claim 1, wherein step (e) comprises removing the oxide film for the storage electrode in the cell area in a BOE (Buffered Oxide Etchant) solution bath using the photoresist film pattern as a mask, and removing the photoresist film pattern of the resulting structure in a Piranha solution bath, and further comprises cleaning the resulting structure in an SC-1 solution bath and cleaning the resulting structure in a diluted HF solution bath.
3. (original) The method according to claim 2, wherein the Piranha solution comprises H₂SO₄ and H₂O₂, the volume ratio of the H₂SO₄ to H₂O₂ ranges from 2 : 1 to 6 : 1, and has a temperature ranging from 90 to 130°C.

4. (original) The method according to claim 2, wherein the Piranha solution comprises H₂SO₄ and H₂O₂, the volume ratio of the H₂SO₄ to H₂O₂ is 4 : 1, and has a temperature of 120°C.

5. (original) The method according to claim 2, wherein the SC-1 solution comprises NH₄OH, H₂O₂ and H₂O, the volume ratio of the NH₄OH, H₂O₂ and H₂O ranging from 1 : 1 : 20 to 1 : 5 : 50, and has a temperature ranging from 25 to 85°C.

6. (original) The method according to claim 2, wherein the SC-1 solution comprises NH₄OH, H₂O₂ and H₂O, the volume ratio of the NH₄OH, H₂O₂ and H₂O is 1 : 4 : 20, and has a temperature of 65°C.

7. (currently amended) The method according to claim 1, wherein step (e) further comprises removing the oxide film for the storage electrode in the cell area in a BHF (Buffered Hydrogen Fluoride) solution bath by using the photoresist film pattern as a mask, cleaning rinsing the resulting structure in a pure water bath, and removing the photoresist film pattern of the resulting structure in a Piranha solution bath, and further comprises cleaning rinsing the resulting structure in a pure water bath, and drying the resulting structure in a dryer.

8. (original) The method according to claim 7, wherein the Piranha solution comprises H₂SO₄ and H₂O₂, the volume ratio of the H₂SO₄ to H₂O₂ ranging from 2 : 1 to 6 : 1, and has a temperature ranging from 90 to 130°C.

9. (original) The method according to claim 7, wherein the Piranha solution comprises H₂SO₄ and H₂O₂, the volume ratio of the H₂SO₄ to H₂O₂ is 4 : 1, and has a temperature of 120°C.

10. (currently amended) The method according to claim 7, further comprising cleaning the resulting structure in an SC-1 solution, and cleaning rinsing the resulting structure in a pure water bath, prior to the drying of the resulting structure in a dryer.

11. (currently amended) The method according to claim 7, further comprising cleaning the resulting structure in an SC-1 solution bath, cleaning rinsing the resulting structure in a ~~pure~~ water bath, cleaning the resulting structure in a diluted HF solution bath, and cleaning rinsing the resulting structure in a ~~pure~~ water bath, prior to the drying of the resulting structure in a dryer.

12. (currently amended) The method according to claim 7, further comprising cleaning the resulting structure in a diluted HF solution bath, cleaning rinsing the resulting structure in a ~~pure~~ water bath, cleaning the resulting structure in an SC-1 solution bath, and cleaning rinsing the resulting structure in a ~~pure~~ water bath, prior to the drying of the resulting structure in a dryer.

13. (original) The method according to claim 10, wherein the SC-1 solution comprises NH₄OH, H₂O₂ and H₂O, the volume ratio of the NH₄OH, H₂O₂ and H₂O ranging from 1 : 1 : 20 to 1 : 5 : 50, and has a temperature ranging from 25 to 85°C.

14. (original) The method according to claim 10, wherein the SC-1 solution comprises NH₄OH, H₂O₂ and H₂O, the volume ratio of the NH₄OH, H₂O₂ and H₂O is 1 : 4 : 20, and has a temperature of 65°C.

15. (currently amended) A method for manufacturing a semiconductor device, comprising:

(a) removing an oxide film for a storage electrode in a cell area of a semiconductor substrate, wherein the storage electrode is disposed in the cell area, and a photoresist film pattern is disposed in peripheral circuit region of the semiconductor substrate by performing a wet etching process in a BHF (Buffered Hydrogen Fluoride) solution bath; and

(b) removing the photoresist film pattern with a Piranha solution bath to provide a resulting structure.

~~(b) cleaning the resulting structure in a ~~pure~~ water bath;~~

~~(c) removing the photoresist film pattern in a Piranha solution bath;~~

~~(d) cleaning the resulting structure in a ~~pure~~ water bath; and~~

~~(e) drying the resulting structure in a dryer.~~

16. (original) The method according to claim 15, wherein the Piranha solution comprises H₂SO₄ and H₂O₂, the volume ratio of the H₂SO₄ to H₂O₂ ranging from 2 : 1 to 6 : 1, and has a temperature ranging from 90 to 130°C.

17. (original) The method according to claim 15, wherein the Piranha solution comprises H₂SO₄ and H₂O₂, the volume ratio of the H₂SO₄ to H₂O₂ is 4 : 1, and has a temperature of 120°C.

18. (currently amended) The method according to claim 15, further comprising cleaning the resulting structure in an SC-1 solution bath, and ~~cleaning rinsing~~ the resulting structure in a ~~pure~~ water bath, prior to the drying of the resulting structure in a dryer.

19. (currently amended) The method according to claim 15, further comprising cleaning the resulting structure in an SC-1 solution bath, ~~cleaning rinsing~~ the resulting structure in a ~~pure~~ water bath, cleaning the resulting structure in a diluted HF solution bath, and ~~cleaning rinsing~~ the resulting structure in a ~~pure~~ water bath, prior to the drying of the resulting structure in a dryer.

20. (currently amended) The method according to claim 15, further comprising cleaning the resulting structure in a diluted HF solution bath, ~~cleaning rinsing~~ the resulting structure in a ~~pure~~ water bath, cleaning the resulting structure in an SC-1 solution bath, and ~~cleaning rinsing~~ the resulting structure in a ~~pure~~ water bath, prior to the drying of the resulting structure in a dryer.

21. (original) The method according to claim 18, wherein the SC-1 solution comprises NH₄OH, H₂O₂ and H₂O, the volume ratio of the NH₄OH, H₂O₂ and H₂O ranging from 1 : 1 : 20 to 1 : 5 : 50, and has a temperature ranging from 25 to 85°C.

22. (original) The method according to claim 18, wherein the SC-1 solution comprises NH₄OH, H₂O₂ and H₂O, the volume ratio of the NH₄OH, H₂O₂ and H₂O is 1 : 4 : 20, and has a temperature of 65°C.

23. (new) The method according to claim 1, further comprising (f) sequentially forming a dielectric film and a plate electrode on the entire surface of the resulting structure.

24. (new) The method according to claim 23, further comprising (g) forming an interlayer insulating film on the entire surface of the resulting structure.